Arizona's College and Career Ready Standards
Mathematics

Crosswalks: AZCCRS / 2008

Sixth Grade

Ratios and Proportional Relationships – (RP)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Understand ratio concepts and use ratio reasoning to solve problems.	6.RP.A.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*	M05-S1C1-05	Use ratios and unit rates to model, describe and extend problems in context. (more general and includes unit rates)
	6.RP.A.2	Understand the concept of a unit rate a/b associated with a ratio $a{:}b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3/4$ cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."* (Expectations for unit rates in this grade are limited to non-complex fractions.)	M05-S1C1-05	Use ratios and unit rates to model, describe and extend problems in context.
	6.RP.A.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.		
		a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.	M05-S1C1-05	Use ratios and unit rates to model, describe and extend problems in context.
			M06-S1C1-03	Demonstrate an understanding of fractions as rates, division of whole numbers, parts of a whole, parts of a set, and locations on a real number line.
			M08-S3C4-02	Solve problems involving simple rates.

* This standard is new to the Arizona College and Career Ready Standards (AZCCRS)

Ratios and Proportional Relationships – (RP)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Understand ratio concepts and use ratio reasoning to solve problems.	6.RP.A.3	*b.* Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*	M05-S1C1-05	Use ratios and unit rates to model, describe and extend problems in context.
			M05-S3C4-01	Describe patterns of change including constant rate and increasing or decreasing rate.
			M06-S1C1-03	Demonstrate an understanding of fractions as rates, division of whole numbers, parts of a whole, parts of a set, and locations on a real number line.
			M08-S3C4-02	Solve problems involving simple rates.
		c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means $30/100$ times the quantity); solve problems involving finding the whole, given a part and the percent.	M07-S1C2-03	Solve problems involving percentages, ratio and proportion, including tax, discount, tips, and part/whole relationships. (percents)
			M08-S3C4-02	Solve problems involving simple rates.
		d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	M05-S1C1-05	Use ratios and unit rates to model, describe and extend problems in context.
			M06-S1C1-03	Demonstrate an understanding of fractions as rates, division of whole numbers, parts of a whole, parts of a set, and locations on a real number line.
			M06-S4C4-02	Solve problems involving conversion within the U.S. Customary and within the metric system.
			M08-S3C4-02	Solve problems involving simple rates.

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The Number System (NS)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	6.NS.A.1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for* $(2/3) ÷$ $(3/4)$ *and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that* $(2/3) ÷$ $(3/4) = 8/9$ *because* $3/4$ *of* $8/9$ *is* $2/3$. *(In general,* $(a/b) ÷ (c/d) = ad/bc$.*) How much chocolate will each person get if 3 people share* $1/2$ *lb of chocolate equally? How many* $3/4$-*cup servings are in* $2/3$ *of a cup of yogurt? How wide is a rectangular strip of land with length* $3/4$ *mi and area* $1/2$ *square mi?*	M06-S1C2-04	Multiply and divide fractions.
			M06-S5C1-01	Analyze algorithms for multiplying and dividing fractions and decimals using the associative, commutative, and distributive properties
Compute fluently with multi-digit numbers and find common factors and multiples.	6.NS.B.2	Fluently divide multi-digit numbers using the standard algorithm.	M05-S1C2-03	Divide multi-digit whole numbers by whole number divisors with and without remainders.
	6.NS.B.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.	M05-S1C2-01	Add and subtract decimals through thousandths and fractions expressing solutions in simplest form.
			M06-S1C2-02	Multiply multi-digit decimals through thousandths.
			M06-S1C2-03	Divide multi-digit whole numbers and decimals by decimal divisors with and without remainders.

		The Number System (NS)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Compute fluently with multi-digit numbers and find common factors and multiples.	6.NS.B.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4(9+2).*	M06-S1C1-02	Use prime factorization to - express a whole number as a product of its prime factors and - determine the greatest common factor and least common multiple of two whole numbers.
			M06-S1C2-06	Apply the commutative, associative, distributive, and identity properties to evaluate numerical expressions involving whole numbers. (distributive property only)
			M07-S1C1-02	Find or use factors, multiples, or prime factorization within a set of numbers.
			M08-S1C2-01	Solve problems with factors, multiples, divisibility or remainders, prime numbers, and composite numbers.
Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.5	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.	M05-S1C1-06	Express or interpret positive and negative numbers in context.

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		The Number System (NS)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.	M05-S1C1-06	Express or interpret positive and negative numbers in context.
		a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., –(–3) = 3, and that 0 is its own opposite.	*	
		b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.	M06-S4C2-02	Draw a reflection of a polygon in the coordinate plane using a horizontal or vertical line of reflection. (any line of reflection, less focus on coordinate values)
			M06-S4C3-01	Graph ordered pairs in any quadrant of the coordinate plane.
		c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.	M05-S1C1-03	Locate integers on a number line.
			M06-S1C1-03	Demonstrate an understanding of fractions as rates, division of whole numbers, parts of a whole, parts of a set, and locations on a real number line.
			M06-S4C3-01	Graph ordered pairs in any quadrant of the coordinate plane.

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		The Number System (NS)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.7	Understand ordering and absolute value of rational numbers.		
		a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret –3 > –7 as a statement that –3 is located to the right of –7 on a number line oriented from left to right.*	M06-S1C1-04	Compare and order integers; and positive fractions, decimals, and percents.
			M07-S1C1-03	Compare and order rational numbers using various models and representations.
			M08-S1C1-01	Compare and order real numbers including very large and small integers, and decimals and fractions close to zero.
		b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write –3 ^{o}C > –7 ^{o}C to express the fact that –3 ^{o}C is warmer than –7 ^{o}C.*	M05-S1C1-06	Express or interpret positive and negative numbers in context.
		c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of –30 dollars, write |–30| = 30 to describe the size of the debt in dollars.*	M06-S1C1-05	Express that a number's distance from zero on the number line is its absolute value.
			M07-S1C1-04	Model and solve simple problems involving absolute value.

		The Number System (NS)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of numbers to the system of rational numbers.	6.NS.C.7	d. Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than –30 dollars represents a debt greater than 30 dollars.*	*****	
	6.NS.C.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.	M06-S4C3-01	Graph ordered pairs in any quadrant of the coordinate plane. (does not include finding distance between points)
			M06-S4C3-02	State the missing coordinate of a given figure on the coordinate plane using geometric properties to justify the solution.
	AZ.6.NS.C.9	Convert between expressions for positive rational numbers, including fractions, decimals, and percents.	M06-S1C1-01	Convert between expressions for positive rational numbers, including fractions, decimals, percents, and ratios.

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Expressions and Equations (EE)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of arithmetic to algebraic expressions.	6.EE.A.1	Write and evaluate numerical expressions involving whole-number exponents.	M06-S1C2-07	Simplify numerical expressions (involving fractions, decimals, and exponents) using the order of operations with or without grouping symbols. (writing expressions not specified)
			M07-S3C3-02	Evaluate an expression containing one or two variables by substituting numbers for the variables. (writing expressions not specified)
	6.EE.A.2	Write, read, and evaluate expressions in which letters stand for numbers.		
		a. Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 − y.*	M06-S3C3-01	Use an algebraic expression to represent a quantity in a given context.
			M06-S3C3-03	Translate both ways between a verbal description and an algebraic expression or equation.
		b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2(8+7) as a product of two factors; view (8+7) as both a single entity and a sum of two terms*	M06-S3C3-03	Translate both ways between a verbal description and an algebraic expression or equation. (vocabulary not specifically addressed)

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Expressions and Equations (EE)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of arithmetic to algebraic expressions.	6.EE.A.2	c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas $V=s^3$ and $A=6 s^2$ to find the volume and surface area of a cube with sides of length s=1/2.*	M06-S1C2-07	Simplify numerical expressions (involving fractions, decimals, and exponents) using the order of operations with or without grouping symbols.
			M06-S3C3-04	Evaluate an expression involving the four basic operations by substituting given fractions and decimals for the variable.
			M07-S3C3-02	Evaluate an expression containing one or two variables by substituting numbers for the variables.
			M08-S3C3-02	Evaluate an expression containing variables by substituting rational numbers for the variables.
	6.EE.A.3	Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*	M08-S3C3-03	Analyze situations, simplify, and solve problems involving linear equations and inequalities using the properties of the real number system. (Includes properties to simplify expressions, does not explicitly address equivalent expressions.)

Expressions and Equations (EE)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Apply and extend previous understandings of arithmetic to algebraic expressions.	6.EE.A.4	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*	M06-S3C3-04	Evaluate an expression involving the four basic operations by substituting given fractions and decimals for the variable. (evaluate expressions)
			M07-S3C3-02	Evaluate an expression containing one or two variables by substituting numbers for the variables. (evaluate expressions)
Reason about and solve one-variable equations and inequalities.	6.EE.B.5	Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	M05-S3C3-01	Create and solve two-step equations that can be solved using inverse operations with whole numbers.
			M06-S3C3-02	Create and solve two-step equations that can be solved using inverse properties with fractions and decimals.
			M07-S3C3-03	Solve multi-step equations using inverse properties with rational numbers.
			M07-S3C3-06	Create and solve one-step inequalities with whole numbers.
	6.EE.B.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.	M04-S3C3-01	Use a symbol to represent an unknown quantity in a simple algebraic expression involving all operations.
			M06-S3C3-01	Use an algebraic expression to represent a quantity in a given context.
			M07-S3C3-01	Write a single variable algebraic expression or one-step equation given a contextual situation.

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		Expressions and Equations (EE)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Reason about and solve one-variable equations and inequalities.	6.EE.B.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	M06-S3C3-02	Create and solve two-step equations that can be solved using inverse properties with fractions and decimals.
	6.EE.B.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.	M07-S3C3-06	Create and solve one-step inequalities with whole numbers.
			M08-S3C3-01	Write or identify algebraic expressions, equations, or inequalities that represent a situation.
			M08-S3C3-05	Graph an inequality on a number line.
Represent and analyze quantitative relationships between dependent and independent variables.	6.EE.C.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*	M06-S3C2-01	Recognize and describe a relationship between two quantities, given by a chart, table, or graph, using words and expressions.
			M07-S3C3-04	Translate between graphs and tables that represent a linear equation.
			M07-S3C4-01	Use graphs and tables to model and analyze change.

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Geometry (G)

CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	M05-S4C4-04	Solve problems involving the area of 2-dimensional figures by using the properties of parallelograms and triangles
			M06-S4C4-04	Solve problems involving the area of simple polygons using formulas for rectangles and triangles.
			M06-S4C4-05	Solve problems involving area and perimeter of regular and irregular polygons.
			M06-S5C1-02	Create and justify an algorithm to determine the area of a given compound figure using parallelograms and triangles.
			M07-S4C4-02	Identify polygons having the same perimeter or area.
			M07-S5C1-01	Create an algorithm to determine the area of a given composite figure.
	6.G.A.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\,w\,h$ and $V = b\,h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	M06-S4C4-06	Describe the relationship between the volume of a figure and the area of its base. (filling to determine volume, no focus on fractional units or formal application of formula)
			M07-S4C4-06	Identify the appropriate unit of measure to compute the volume of an object and justify reasoning.

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Geometry (G)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Solve real-world and mathematical problems involving area, surface area, and volume.	6.G.A.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.	M06-S4C3-01	Graph ordered pairs in any quadrant of the coordinate plane. (does not include finding distance between points)
			M06-S4C3-02	State the missing coordinate of a given figure on the coordinate plane using geometric properties to justify the solution.
	6.G.A.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	M05-S4C1-04	Compare attributes of 2-dimensional figures with 3-dimensional figures by drawing and constructing nets and models.
			M07-S4C4-05	Create a net to calculate the surface area of a given solid. (includes rectangular and triangular prisms but not pyramids)

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		Statistics and Probability (SP)		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Develop understanding of statistical variability.	6.SP.A.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*	*	
	6.SP.A.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.	M06-S2C1-03	Use extreme values, mean, median, mode, and range to analyze and describe the distribution of a given data set.
	6.SP.A.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	M06-S2C1-03	Use extreme values, mean, median, mode, and range to analyze and describe the distribution of a given data set.
Summarize and describe distributions.	6.SP.B.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	M06-S2C1-01	Solve problems by selecting, constructing, and interpreting displays of data, including histograms and stem-and-leaf plots. (histogram and stem and leaf)
			M06-S2C1-02	Formulate and answer questions by interpreting, analyzing, and drawing inferences from displays of data, including histograms and stem-and-leaf plots. (also includes dot plots from grade 5)
			M08-S2C1-01	Solve problems by selecting, constructing, interpreting, and calculating with displays of data, including box and whisker plots and scatterplots. (box plots)

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STATISTICS AND PROBABILITY (SP)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
Summarize and describe distributions.	6.SP.B.5	Summarize numerical data sets in relation to their context, such as by:		
		a. Reporting the number of observations.	M06-S2C1-02	Formulate and answer questions by interpreting, analyzing, and drawing inferences from displays of data, including histograms and stem-and-leaf plots.
		b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	M06-S2C1-01	Solve problems by selecting, constructing, and interpreting displays of data, including histograms and stem-and-leaf plots.
			M08-S2C1-01	Solve problems by selecting, constructing, interpreting, and calculating with displays of data, including box and whisker plots and scatterplots.
		c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.	M05-S2C1-03	Use mean, median, mode, and range to analyze and describe the distribution of a given set.
			M06-S2C1-03	Use extreme values, mean, median, mode, and range to analyze and describe the distribution of a given data set. (does not include mean absolute deviation)
			M08-S2C1-01	Solve problems by selecting, constructing, interpreting, and calculating with displays of data, including box and whisker plots and scatterplots.
		d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	*	

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Standards for Mathematical Practice – (MP)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
	6.MP.1	Make sense of problems and persevere in solving them.	M06-S5C2-01	Analyze a problem situation to determine the question(s) to be answered.
			M06-S5C2-02	Identify relevant, missing, and extraneous information related to the solution to a problem.
			M06-S5C2-03	Analyze and compare mathematical strategies for efficient problem solving; select and use one or more strategies to solve a problem.
			M06-S5C2-04	Apply a previously used problem-solving strategy in a new context.
			M06-S5C2-05	Represent a problem situation using multiple representations, describe the process used to solve the problem, and verify the reasonableness of the solution.
			M06-S5C2-06	Communicate the answer(s) to the question(s) in a problem using appropriate representations, including symbols and informal and formal mathematical language.
			M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.
			M06-S5C2-08	Make and test conjectures based on information collected from explorations and experiments.
	6.MP.2	Reason abstractly and quantitatively.	M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.

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Standards for Mathematical Practice – (MP)				
CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
	6.MP.3	Construct viable arguments and critique the reasoning of others.	M06-S5C2-05	Represent a problem situation using multiple representations, describe the process used to solve the problem, and verify the reasonableness of the solution.
			M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.
			M06-S5C2-08	Make and test conjectures based on information collected from explorations and experiments.
	6.MP.4	Model with mathematics.	M06-S5C2-03	Analyze and compare mathematical strategies for efficient problem solving; select and use one or more strategies to solve a problem.
			M06-S5C2-04	Apply a previously used problem-solving strategy in a new context.
			M06-S5C2-05	Represent a problem situation using multiple representations, describe the process used to solve the problem, and verify the reasonableness of the solution.
			M06-S5C2-06	Communicate the answer(s) to the question(s) in a problem using appropriate representations, including symbols and informal and formal mathematical language.
			M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.
	6.MP.5	Use appropriate tools strategically.	M06-S5C2-03	Analyze and compare mathematical strategies for efficient problem solving; select and use one or more strategies to solve a problem.
			M06-S5C2-08	Make and test conjectures based on information collected from explorations and experiments.

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Standards for Mathematical Practice – (MP)				
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
	6.MP.6	Attend to precision.	M06-S5C2-06	Communicate the answer(s) to the question(s) in a problem using appropriate representations, including symbols and informal and formal mathematical language.
			M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.
	6.MP.7	Look for and make use of structure.	M06-S5C2-07	Isolate and organize mathematical information taken from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.
			M06-S5C2-08	Make and test conjectures based on information collected from explorations and experiments.
	6.MP.8	Look for and express regularity in repeated reasoning.	M06-S5C2-05	Represent a problem situation using multiple representations, describe the process used to solve the problem, and verify the reasonableness of the solution.

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CLUSTER	AZCCRS	ITEM DESCRIPTION	2008 PO	ITEM DESCRIPTION
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	8.EE.2	MOVED TO GRADE 8	M06-S1C1-06	Express the inverse relationships between exponents and roots for perfect squares and cubes.
	7.NS.1	MOVED TO GRADE 7	M06-S1C2-01	Apply and interpret the concepts of addition and subtraction with integers using models.
	5.NF.4b	MOVED TO GRADE 5	M06-S1C2-05	Provide a mathematical argument to explain operations with two or more fractions or decimals.
	8.NS.2	MOVED TO GRADE 8	M06-S1C3-01	Use benchmarks as meaningful points of comparison for rational numbers.
		REMOVED	M06-S1C3-02	Make estimates appropriate to a given situation and verify the reasonableness of the results.
		REMOVED	M06-S2C1-04	Compare two or more sets of data by identifying trends.
	7.SP.7a	MOVED TO GRADE 7	M06-S2C2-01	Use data collected from multiple trials of a single event to form a conjecture about the theoretical probability.
	7.SP.7a 7.SP.7b	MOVED TO GRADE 7	M06-S2C2-02	Use theoretical probability to • predict experimental outcomes, • compare the outcome of the experiment to the prediction, and • replicate the experiment and compare results.
	7.SP.8b	MOVED TO GRADE 7	M06-S2C2-03	Determine all possible outcomes (sample space) of a given situation using a systematic approach.
		REMOVED	M06-S2C3-01	Build and explore tree diagrams where items repeat.
		REMOVED	M06-S2C3-02	Explore counting problems with Venn diagrams using three attributes.
		REMOVED	M06-S2C4-01	Investigate properties of vertex-edge graphs • Hamilton paths, • Hamilton circuits, and • shortest route.
		REMOVED	M06-S2C4-02	Solve problems related to Hamilton paths and circuits.
		REMOVED	M06-S3C1-01	Recognize, describe, create, and analyze a numerical sequence involving fractions and decimals using all four basic operations.

Removed or Moved 2008 Performance Objectives

* This standard is new to the Arizona College and Career Ready Standards (AZCCRS)

		Removed or Moved 2008 Performance Objectives		
CLUSTER	**AZCCRS**	**ITEM DESCRIPTION**	**2008 PO**	**ITEM DESCRIPTION**
	5.G.2	MOVED TO GRADE 5	M06-S3C4-01	Determine a pattern to predict missing values on a line graph or scatterplot.
	7.G.4	MOVED TO GRADE 7	M06-S4C1-01	Define π (pi) as the ratio between the circumference and diameter of a circle and explain the relationship among the diameter, radius, and circumference.
	7.G.5	MOVED TO GRADE 7	M06-S4C1-02	Solve problems using properties of supplementary, complementary, and vertical angles.
	8.G.2 8.G.3	MOVED TO GRADE 8	M06-S4C2-01	Identify a simple translation or reflection and model its effect on a 2-dimensional figure on a coordinate plane using all four quadrants.
		REMOVED	M06-S4C4-01	Determine the appropriate unit of measure for a given context and the appropriate tool to measure to the needed precision (including length, capacity, angles, time, and mass).
	7.G.1	MOVED TO GRADE 7	M06-S4C4-03	Estimate the measure of objects using a scale drawing or map.
		REMOVED	M06-S5C2-09	Solve simple logic problems, including conditional statements, and justify solution methods and reasoning.

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